

In the Specification:

Rewrite the paragraph extending from page 4, line 28 through page 5, line 2, as follows:

a<sub>1</sub>

Any print- or physical media-watermark technology can be employed in conjunction with the present invention. Representative watermarking technologies suitable for such use are detailed in the assignee's patent 5,862,260, and in applications 09/074,034 (now patent 6,449,377), 09/127,502 (now patent 6,345,104), 09/503,881, 09/562,516, and 09/562,524. A great many other watermarking technologies are familiar to those skilled in the digital watermarking art.

Rewrite the paragraph extending between lines 14 and 28 on page 6 as follows:

a<sub>2</sub>

As noted, a "fragile" digital watermark is one designed not to fully withstand the scanning/printing operations associated with photocopying. (The use of fragile watermarks is detailed in the assignee's applications 09/234,780 (now abandoned in favor of continuation application 09/616,462, which has issued as patent 6,332,031), 09/287,940, 09/433,104 and 09/498,223 (now patent 6,574,350), 09/625,577, 60/198,138, 09/645,779 (now patent 6,535,618), and in three applications filed herewith: ~~Halftone Watermarking and Related Applications <docket 60302>; Watermarks Carrying Content Dependent Signal Metrics for Detecting and Characterizing Signal Alteration <docket 60305>; and Watermarking Recursive Hashes Into Frequency Domain Regions <docket 60306>~~.) 09/689,226, 09/689,250, and 09/689,293. If markings (e.g., legitimate franking indicia) incorporating such a watermark are photocopied or otherwise reproduced from one envelope onto a second envelope, the copy will either not fully include the watermark, or the watermark will be changed in a way that indicates it is a copy. Processing equipment in the postal system can be alert to such copies (which are identified by the absence or modification of the fragile watermark), and cull them from the properly-franked

*Q2* <sup>1</sup> Cont mail. Likewise, fraud or counterfeit investigators can use special readers to verify originality and detect copies.

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Rewrite the paragraph extending between lines 11 and 20 of page 7 as follows:

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*Q3* Likewise, the fragile watermark can be implemented in various ways. For example, the watermark can be implemented by varying thicknesses of lines, adding dots or speckles or ink, or modulating the brightness of printed pixels. (Such watermarking arrangements are further detailed in applications 09/074,034 (**now patent 6,449,377**) and 09/127,502 (**now patent 6,345,104**.) Or the watermark can be formed by texturing of the substrate. Such texturing can be applied in various ways. One is by a mechanism integrated with the printer, e.g., one that impresses the medium with a pinch roller or other pressure-applying means. Another is during fabrication of the paper, e.g., by texturing dewatering elements in the paper making machinery to impress a desired pattern on the medium. (One such arrangement is detailed in application 09/437,357, filed November 10, 1999.)

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Rewrite the paragraph extending between lines 3 and 13 of page 8 as follows:

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*Q4* Such watermark-based "do not copy" systems are further detailed in applications 09/074,034 (**now patent 6,449,377**), 09/127,502 (**now patent 6,345,104**), 09/185,380 (**now patent 6,549,638**) and 09/287,940 (**now patent 6,580,819**). The detection of the watermark can occur in various, and preferably numerous, locations in likely reproduction systems. In a desktop computer system, for example, image data may be analyzed for such a watermark by software in the scanner (e.g., scanner driver software), software in the computer (e.g., TWAIN interface software, operating system software, image editing software, internet browser software, printer driver software), and software in the printer (e.g., printer firmware). If any of these detectors encounters image data that has a "do not copy" watermark encoded therein, the detector will interfere

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with its reproduction (e.g., by discontinuing the process, by scarring the image, by hiding tracer data for later forensic use, etc.)

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Rewrite the paragraph extending between lines 3 and 4 on page 15 as follows:

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(Watermarking of blank paper stock is referenced in various of the assignee's applications, including 09/127,502 (**now patent 6,345,104**) and 09,619,264, as well as in patent 5,822,436.)

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